

# REPORT ON MACHINERY.

No. 13536

WED. 20 MAR 1895

Port of Glasgow

Received at London Office

No. in Survey held at Dumbarton  
Reg. Book

Date, first Survey 9<sup>th</sup> July

Last Survey 15<sup>th</sup> March 1895

on the S. S. "Semiramis"

(Number of Visits 53)

Tons { Gross 4046  
Net 2556

Master A. Fellner Built at Dumbarton By whom built W. Denny Bros

When built 1895

Engines made at Dumbarton By whom made Denny & Co

when made 1895

Boilers made at Dumbarton By whom made Denny & Co

when made 1895

Registered Horse Power 432

Owners Lloyd Austro-Societa de Nava  
Vapore del Trieste

Port belonging to Trieste

Nom. Horse Power as per Section 28 445

**ENGINES, &c.**— Description of Engines Triple expansion inverted direct acting No. of Cylinders three  
Diameter of Cylinders 35 $\frac{1}{2}$ ", 57", 92" Length of Stroke 54" Revolutions per minute \_\_\_\_\_ Diameter of Screw shaft as per rule 16 $\frac{1}{2}$ "  
as per rule 15 $\frac{1}{2}$ " Diameter of Crank shaft journals 17" Diameter of Crank pin 17 $\frac{1}{4}$ " Size of Crank webs 12 $\frac{1}{2}$ " x 33 $\frac{1}{2}$ "  
as fitted 16 $\frac{1}{2}$ " Diameter of Tunnel shaft \_\_\_\_\_  
Diameter of screw 18 $\frac{1}{2}$ " Pitch of screw 23 $\frac{1}{2}$ " No. of blades four State whether moveable yes Total surface 100 sq. ft.  
No. of Feed pumps two Diameter of ditto 4 $\frac{3}{4}$ " Stroke 27 $\frac{1}{2}$ " Can one be overhauled while the other is at work yes  
Sanitary pump one " " 4 $\frac{1}{2}$ " " " 27 $\frac{1}{2}$ " " " 27 $\frac{1}{2}$ " Can one be overhauled while the other is at work yes  
No. of Bilge pumps two Diameter of ditto 4 $\frac{3}{4}$ " Stroke 27 $\frac{1}{2}$ " " " 27 $\frac{1}{2}$ " " " 27 $\frac{1}{2}$ " Can one be overhauled while the other is at work yes  
No. of Donkey Engines Five Sizes of Pumps Warrington { 7 $\frac{1}{2}$ " x 8 $\frac{1}{2}$ " x 10 $\frac{1}{2}$ " } No. and size of Suctions connected to both Bilge and Donkey pumps  
In Engine Room Four 3 $\frac{1}{2}$ ", in gutters and in 2 Wells. { 7 $\frac{1}{2}$ " x 4 $\frac{1}{2}$ " x 6 $\frac{1}{2}$ " } one pulsometer 3" suction  
{ 4 $\frac{1}{2}$ " x 2 $\frac{1}{2}$ " x 4 $\frac{1}{2}$ " } in Holds, &c. Seven 3 $\frac{1}{2}$ "  
No. of bilge injections one size 10" Connected to condenser, or to circulating pump in p. Is a separate donkey suction fitted in Engine room & size 3 $\frac{1}{2}$ "  
Are all the bilge suction pipes fitted with roses yes Are the roses in Engine room always accessible yes Are the sluices on Engine room bulkheads always accessible none  
Are all connections with the sea direct on the skin of the ship yes Are they Valves or Cocks Valves and Cocks  
Are they fixed sufficiently high on the ship's side to be seen without lifting the stokehold plates yes Are the discharge pipes above or below the deep water line above  
Are they each fitted with a discharge valve always accessible on the plating of the vessel yes Are the blow off cocks fitted with a spigot and brass covering plate yes  
What pipes are carried through the bunkers Bilge and Ballast pipes How are they protected Boased in.  
Are all pipes, cocks, valves, and pumps in connection with the machinery and all boiler mountings accessible at all times yes  
Are the bilge suction pipes, cocks, and valves arranged so as to prevent any communication between the sea and the bilges yes  
When were stern tube, propeller, screw shaft, and all connections examined in dry dock before launch Is the screw shaft tunnel watertight apparently  
Is it fitted with a watertight door yes worked from upper platform

**BOILERS, &c.**— (Letter for record S.) Total Heating Surface of Boilers 13,900 sq. ft.  
No. and Description of Boilers Five Cylindrical return tubular Working Pressure 165 lbs Tested by hydraulic pressure to 330 lbs  
Date of test 7. 12. 94 Can each boiler be worked separately yes Area of fire grate in each boiler 86 sq. ft. No. and Description of safety valves to  
each boiler two spring loaded Area of each valve 9 $\frac{1}{2}$  sq. in. Pressure to which they are adjusted 165 lbs Are they fitted  
with easing gear yes Smallest distance between boilers or uptakes and bunkers or woodwork 12 inches Mean diameter of boilers 192 $\frac{3}{4}$ "  
Length 9' 11 $\frac{1}{4}$ " Material of shell plates Steel Thickness 1 $\frac{1}{32}$ " Description of riveting: circum. seams lap 2 x 3 Ribs long. seams D Butt 5 Ribs  
Diameter of rivet holes in long. seams 1 $\frac{1}{8}$ " Pitch of rivets 9 $\frac{1}{8}$ " Lap of plates or width of butt straps 20 $\frac{1}{4}$ " x 1 $\frac{1}{32}$ "  
Per centages of strength of longitudinal joint rivets 90.2 plate 84.9 Working pressure of shell by rules 180 $\frac{1}{2}$  lbs Size of manhole in shell 17" x 13"  
Size of compensating ring 9" x 1 $\frac{3}{8}$ " No. and Description of Furnaces in each boiler Four ribbed Material Steel Outside diameter 42"  
Length of plain part top \_\_\_\_\_ bottom \_\_\_\_\_ Thickness of plates crown 3 $\frac{1}{32}$ " bottom 3 $\frac{1}{32}$ " Description of longitudinal joint welded No. of strengthening rings ribs  
Working pressure of furnace by the rules 180 lbs Combustion chamber plates: Material Steel Thickness: Sides 9 $\frac{1}{16}$ " Back 9 $\frac{1}{16}$ " Top 9 $\frac{1}{16}$ " Bottom 1 $\frac{1}{16}$ "  
Pitch of stays to ditto: Sides 7 $\frac{1}{4}$ " x 8" Back 7 $\frac{1}{4}$ " x 8" Top 8" x 8" If stays are fitted with nuts or riveted heads nuts Working pressure by rules 171 lbs  
Material of stays Steel Diameter at smallest part 1 $\frac{1}{4}$ " Area supported by each stay 64 sq. in. Working pressure by rules 180 lbs End plates in steam space:  
Material Steel Thickness 1 $\frac{1}{16}$ " Pitch of stays 16 $\frac{1}{2}$ " x 15" How are stays secured D Nuts & riveted washers Working pressure by rules 165 lbs Material of stays Steel  
Diameter at smallest part 4 $\frac{1}{4}$ " Area supported by each stay 2475 sq. in. Working pressure by rules 176 lbs Material of Front plates at bottom Steel  
Thickness 1 $\frac{1}{16}$ " Material of Lower back plate Steel Thickness 3 $\frac{1}{16}$ " Greatest pitch of stays 13 $\frac{1}{2}$ " Working pressure of plate by rules 240 lbs  
Diameter of tubes 3 $\frac{1}{4}$ " Pitch of tubes 4 $\frac{5}{16}$ " Material of tube plates Steel Thickness: Front 3 $\frac{1}{16}$ " Back 3 $\frac{1}{16}$ " Mean pitch of stays 9 $\frac{1}{4}$ "  
Pitch across wide water spaces 13 $\frac{3}{4}$ " Working pressures by rules 240, 215 lbs Girders to Chamber tops: Material Iron Depth and  
thickness of girder at centre 6 $\frac{1}{2}$ " x 2 $\frac{1}{4}$ " Length as per rule 24" Distance apart 8" Number and pitch of Stays in each two 8"  
Working pressure by rules 185 lbs Superheater or Steam chest; how connected to boiler none Can the superheater be shut off and the boiler worked  
separately \_\_\_\_\_ Diameter \_\_\_\_\_ Length \_\_\_\_\_ Thickness of shell plates \_\_\_\_\_ Material \_\_\_\_\_ Description of longitudinal joint \_\_\_\_\_ Diam. of rivet  
holes \_\_\_\_\_ Pitch of rivets \_\_\_\_\_ Working pressure of shell by rules \_\_\_\_\_ Diameter of flue \_\_\_\_\_ Material of flue plates \_\_\_\_\_ Thickness \_\_\_\_\_  
If stiffened with rings \_\_\_\_\_ Distance between rings \_\_\_\_\_ Working pressure by rules \_\_\_\_\_ End plates: Thickness \_\_\_\_\_ How stayed \_\_\_\_\_  
Working pressure of end plates \_\_\_\_\_ Area of safety valves to superheater \_\_\_\_\_ Are they fitted with easing gear \_\_\_\_\_

If not, state whether, and when, one

No. 8-9/94. Copyable Ink.

Lloyd's Register  
GOS17H03440N



13536 gls

**DONKEY BOILER**— Description *See attached report*  
Made at \_\_\_\_\_ By whom made \_\_\_\_\_ When made \_\_\_\_\_ Where fixed *in Deck house*  
Working pressure \_\_\_\_\_ tested by hydraulic pressure to \_\_\_\_\_ No. of Certificate \_\_\_\_\_ Fire grate area \_\_\_\_\_ Description of safety valves \_\_\_\_\_  
No. of safety valves \_\_\_\_\_ Area of each \_\_\_\_\_ Pressure to which they are adjusted \_\_\_\_\_ If fitted with easing gear \_\_\_\_\_ If steam from main boilers can enter the donkey boiler \_\_\_\_\_ Diameter of donkey boiler \_\_\_\_\_ Length \_\_\_\_\_ Material of shell plates \_\_\_\_\_ Thickness \_\_\_\_\_  
Description of riveting long. seams \_\_\_\_\_ Diameter of rivet holes \_\_\_\_\_ Whether punched or drilled \_\_\_\_\_ Pitch of rivets \_\_\_\_\_  
Lap of plating \_\_\_\_\_ Per centage of strength of joint \_\_\_\_\_ Rivets \_\_\_\_\_ Thickness of shell crown plates \_\_\_\_\_ Radius of do. \_\_\_\_\_ No. of Stays to do. \_\_\_\_\_  
Dia. of stays \_\_\_\_\_ Diameter of furnace Top \_\_\_\_\_ Bottom \_\_\_\_\_ Length of furnace \_\_\_\_\_ Thickness of furnace plates \_\_\_\_\_ Description of joint \_\_\_\_\_ Thickness of furnace crown plates \_\_\_\_\_ Stayed by \_\_\_\_\_ Working pressure of shell by rules \_\_\_\_\_  
Working pressure of furnace by rules \_\_\_\_\_ Diameter of uptake \_\_\_\_\_ Thickness of uptake plates \_\_\_\_\_ Thickness of water tubes \_\_\_\_\_

**SPARE GEAR.** State the articles supplied:— *As required by the rules, also one third crankshaft and a spare propeller shaft.*

The foregoing is a correct description,

*Deane & Ray* Manufacturers.

**General Remarks** (State quality of workmanship, opinions as to class, &c. *The machinery and boilers of this vessel have been built under the conditions of Special Survey. They have been severely fitted on board and tested under steam.*

*The material & workmanship are good.*

*The safety valves will be adjusted under steam in the course of the week and the trial trip will be run early next week when the ship will at once proceed on her voyage, and the Owners desire to receive the certificates before the 4th or on that day, these reports are being sent on now.*

*It is submitted that the vessel will be eligible for the record # L.M.C. 3.95 when all the safety valves have been adjusted under steam in the course of this week.*

Certificate (if required) to be sent to *Glasgow*

The amount of Entry Fee..	£ 3 : " : "	When applied for,	15/3/95
Special .. .. .	£ 58 : 15 : "	When received,	22/3/95
Donkey Boiler Fee .. .. .	£ " : " : "		
Travelling Expenses (if any) £	" : " : "		

*C. J. Stromeier*  
Engineer Surveyor to Lloyd's Register of British & Foreign Shipping.

Committee's Minute

Assigned

FRIDAY 22 MAR 1895

*+ L.M.C. 3.95*

*Now in order for posting  
as 1/4/95*



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Foundation